

10/556359  
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## SEQUENCE LISTING

<110> Fischetti, Vincent  
Nelson, Daniel  
Schuch, Raymond

<120> Nucleic Acids and Polypeptides of C1  
Bacteriophage and Uses Thereof

<130> 600-1-297PCT

<150> 60/470655

<151> 2003-05-15

<160> 31

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 173

<212> PRT

<213> Bacteriophage C1 polypeptide

<400> 1

Met	Lys	Ile	Arg	Met	Lys	Thr	Ile	Tyr	Thr	Phe	Ser	Thr	Thr	Ile	Ala
1				5					10					15	
Thr	Leu	Ala	Leu	Gly	Val	Asn	Leu	Leu	Met	Asp	Lys	Gly	Asp	Asn	Asn
			20					25					30		
Asn	Val	Asn	Thr	Asp	Asn	Thr	Phe	Asn	Asn	Ser	Asn	Pro	Ile	Val	Gln
		35					40					45			
Val	Asp	Asn	Asn	Ser	Ser	Glu	Ala	Thr	Thr	Thr	Ile	Thr	Ser	Asp	Thr
	50					55					60				
Asn	Asp	Asn	Gln	Val	Ala	Ala	Asp	Asp	Thr	Asn	Asp	Thr	Glu	Gln	Leu
65					70				75						80
Asp	Tyr	Phe	Gln	Pro	Tyr	Glu	Tyr	Leu	Tyr	Met	Pro	Ser	Thr	Asn	Val
			85					90					95		
Ser	Ser	Ile	Arg	Asp	Gly	Tyr	Tyr	Leu	Val	Ser	Gly	Gly	Asn	Thr	Leu
			100					105					110		
Ala	Ala	Val	Gln	Ile	Thr	Asn	Gly	Tyr	Thr	Thr	Asp	Glu	Phe	Arg	Leu
		115					120					125			
Lys	Asn	Ile	Ser	Ala	Glu	Gln	Trp	Thr	Val	Ser	Gln	Gln	Gln	Met	Glu
	130					135					140				
Asp	Phe	Val	Tyr	Trp	Leu	Arg	Glu	Val	Ser	Pro	Ser	Gly	Tyr	Asn	Gln
145					150					155					160
Lys	Ser	Leu	Glu	Asn	Asn	Phe	Lys	Ile	Phe	Ile	Lys	Lys			
				165						170					

<210> 2

<211> 62

<212> PRT

<213> Bacteriophage C1 polypeptide

<400> 2

Met Lys Thr Gln Glu Trp Tyr Leu Val Asn Phe Gly Leu Tyr Glu Thr

1		5		10		15									
Lys	Thr	Gln	Glu	Met	Glu	Thr	Asn	Ser	Arg	Tyr	Phe	Glu	Asp	Lys	Gln
		20					25					30			
Ala	Ala	Leu	Asp	Phe	Phe	Tyr	Thr	Leu	Ala	Asn	Glu	Gly	Tyr	Tyr	Asp
		35					40					45			
Trp	Ala	His	Val	Tyr	Ser	Asn	Leu	Glu	Met	Glu	Ile	Ile	Leu		
	50					55					60				

&lt;210&gt; 3

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Bacteriophage C1 polypeptide

&lt;400&gt; 3

Met	Lys	Gln	Thr	Asn	Ile	Asp	Ala	Leu	Phe	Gly	Lys	Gly	Asp	His	Gln
1				5					10					15	
Leu	Met	Asn	Lys	Glu	Ser	Lys	Tyr	Leu	Ser	Thr	Leu	Phe	Ile	Asn	Ile
		20					25					30			
Glu	Glu	Leu	Ser	Val	His	Leu	Ser	Ser	Val	Thr	Leu	Phe	Ile	Asp	Glu
		35					40					45			
Tyr	Glu	Gln	Leu	Lys	Glu	Asn	Ala	Ile	Lys	Ser	Lys	Asn	Gly	Lys	Cys
	50					55				60					
Leu	Lys	Leu	Gly	Asn	Thr	Leu	Tyr	Phe	Thr	Asn	Asn	Asn	Tyr	Ala	Thr
65					70					75					80
Lys	Leu	Tyr	Asn	Ser	Leu	Leu	Ala	Leu	Gly	Phe	Asn	Gly	Ala	Asn	Ser
			85						90					95	
Phe	Ser	Ser	Gly	Glu	Gln	Thr	Tyr	Val	Ile	Ser	Leu	Thr	Gly	Gly	Asn
			100					105					110		
Ala	Thr	Leu	Thr	Thr	Val	Lys	Thr	His	Tyr	Gly	Asp	Val	Lys	Tyr	His
		115					120					125			
Tyr	Lys	His	Glu	Lys	Leu	Pro	Val	Lys	Lys	Ile	Val	Asn	Asp	Phe	Trp
	130					135				140					
Leu	Ser	Glu	Gln	Glu	Tyr	Val	Tyr	Thr	Asn	Ser	Ile	Lys	Leu	Ala	Tyr
145					150					155					160
Ala	Leu	Leu	Asp	Leu	Tyr	Lys	Thr	Met	Gly	Tyr	Ser	Thr	Leu	Asn	Thr
				165					170					175	

Ile Lys

&lt;210&gt; 4

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Bacteriophage C1 polypeptide

&lt;400&gt; 4

Met	Ala	Ile	Asn	Phe	Thr	Asn	Ile	Gly	Phe	Ile	Asn	Phe	Asn	Lys	Glu
1				5					10					15	
Tyr	Asn	Lys	Val	Leu	Lys	Asn	Gly	Ala	Ile	Thr	Ala	Ser	Met	Ser	Ala
		20					25					30			
Ser	Gln	Lys	Asp	Val	Lys	Gly	Glu	Tyr	Val	Asp	Glu	Tyr	His	Asn	Val
		35					40					45			
Thr	Ile	Pro	Lys	Lys	Val	Ala	Asp	Gln	Ile	Lys	Pro	Leu	Ile	Asn	Thr
	50					55				60					
Glu	Leu	Cys	Asp	Ile	Gln	Gly	Val	Ile	Ser	Arg	Asn	Asp	Lys	Tyr	Thr
65					70					75					80

Asn Ile Thr Ile Leu Gly Ala Lys Lys His Val Lys Ala Glu Ala Val  
                     85                    90                    95  
 Asp Val Ala Asp Glu Asp Leu Pro Phe  
                     100                    105

<210> 5  
 <211> 207  
 <212> PRT  
 <213> Bacteriophage C1 polypeptide

<400> 5  
 Met Lys Gly Asp Glu Glu Arg Thr Ile Lys Ser Leu Phe Pro Leu Phe  
 1                    5                    10                    15  
 Lys Tyr Met Ala Asn Lys Arg Gln Arg Lys Lys Gln Leu Lys Gln Gln  
                     20                    25                    30  
 Tyr Gly Val Gly His Lys Tyr Thr Pro Lys Leu Ser Gln Thr Gln Gln  
                     35                    40                    45  
 Lys Gln Ala Asp Phe Leu Lys Ser Ile Gly Gln Lys Phe Thr Asn Tyr  
                     50                    55                    60  
 Gln Thr Val Thr Ile Asp Lys Thr Tyr Ser Lys Asn Gln Glu Leu Leu  
 65                    70                    75                    80  
 Asp Thr Ala Asn Glu Ala Leu His Arg Leu Gly Ile Phe Phe Asp Gly  
                     85                    90                    95  
 Ser Glu Lys Ile Lys Leu Gln Gln Val Thr Asp Asp Asp Leu Arg Tyr  
                     100                    105                    110  
 Ile Ile Asn Lys Leu Gln Pro Leu Leu Glu Ser Val Thr Met Arg Tyr  
                     115                    120                    125  
 Lys Lys Phe Leu Thr Asn Thr Tyr Arg Ser Asn Asn Arg Asp Tyr Arg  
                     130                    135                    140  
 Leu Asp Trp Leu Leu Lys Ser Ala Ile Ser Lys Lys Leu Lys Asn Ala  
 145                    150                    155                    160  
 Gln Thr Val Arg Gly Leu Val Val Ala Ile Asn Lys Met Asp Arg Asp  
                     165                    170                    175  
 Phe Lys Glu Tyr Asp Lys Lys Leu Arg Lys Ser Ser Lys Gln Gly Asn  
                     180                    185                    190  
 Pro Phe Gly Phe Val Val Val Lys Tyr Ser Glu Met Gly Leu Met  
                     195                    200                    205

<210> 6  
 <211> 408  
 <212> PRT  
 <213> Bacteriophage C1 polypeptide

<400> 6  
 Met Ala Arg Lys Val Lys Lys Thr Ile Lys Thr Ile Phe Lys Asn Glu  
 1                    5                    10                    15  
 Glu Glu Glu Phe Lys Thr Leu Leu Asn Asp Tyr Arg Lys Lys Tyr Leu  
                     20                    25                    30  
 Pro Ser Lys Tyr Asn Gln Leu Glu Leu Leu Asp Trp Leu Cys Ser Asp  
                     35                    40                    45  
 Glu Ile Leu His Tyr Met Ser Ile Thr Ser Arg Gly Asp Gly Lys Ser  
                     50                    55                    60  
 Phe Asn Tyr Ile Gly Ala Leu Ala Trp Leu Ser Tyr His Leu Asn Phe  
 65                    70                    75                    80  
 Gly Thr Met Leu Leu Val Arg His Trp Ser Leu Met Asp Lys Met Ala

				85					90					95					
Glu	Met	Val	Phe	Glu	Ile	Ile	Arg	Thr	Val	Gly	Met	Phe	Asp	Ile	Glu				
			100						105					110					
Asn	Val	Gly	Ile	Gln	Ala	Lys	Ala	Asp	Tyr	Leu	Thr	Ile	Thr	Ile	Glu				
		115						120					125						
Gly	Arg	Glu	Val	Phe	Ile	Ile	Thr	Asn	Leu	Asn	Asn	Ala	Ser	Asp	Leu				
	130						135				140								
Lys	Gln	Ser	Ser	Ala	Val	Leu	Arg	Asn	Tyr	Pro	Val	Val	Leu	Tyr	Asp				
145					150					155					160				
Glu	Phe	Leu	Thr	Leu	Gly	Glu	Asp	Tyr	Val	Thr	Asn	Glu	Leu	Ala	Lys				
				165					170						175				
Leu	Gln	Thr	Ile	Ile	Lys	Ser	Ile	Asp	Arg	Met	Gly	Lys	Arg	Pro	Tyr				
			180					185						190					
Ile	Lys	Arg	Pro	Lys	Ile	Ile	Tyr	Leu	Gly	Asn	Pro	Val	Asn	Phe	Asp				
		195						200					205						
Ser	Pro	Ile	Leu	Pro	Ala	Leu	Asn	Ile	Phe	Tyr	Ala	Leu	Gln	Asn	Gln				
	210						215				220								
Glu	Ile	Asn	Thr	Ile	Gln	Gln	His	Gly	Lys	Thr	Ile	Leu	Glu	Leu	Arg				
225					230					235					240				
Arg	Asn	Asp	Glu	Val	Asn	Glu	Glu	Lys	Thr	Thr	Gly	Tyr	Phe	Glu	Asp				
			245						250					255					
Ser	Val	Asp	Ser	Asp	Ile	Thr	Gly	Glu	Phe	Asn	Phe	Ser	Asn	Tyr	Arg				
		260					265						270						
Leu	Ala	Asp	Gln	Gln	Thr	Tyr	Asn	Lys	Ala	Leu	Thr	Asn	Gly	Thr	Leu				
	275						280					285							
Tyr	Lys	Ile	Arg	Leu	Glu	Asp	Lys	Leu	Ser	Tyr	Val	Ile	Leu	Glu	Ser				
290						295					300								
Asp	Asn	Glu	Tyr	Ile	Leu	Ser	Ile	Glu	Glu	Ser	Lys	Leu	Asp	Glu	Asn				
305					310					315					320				
Tyr	Cys	Ile	His	Leu	Lys	Asp	Glu	Thr	Ala	Thr	Cys	Glu	Tyr	Leu	Lys				
			325						330					335					
Pro	Ser	Phe	Tyr	Lys	Asp	Ser	Phe	Ile	Lys	Arg	Phe	Gln	Lys	Gly	His				
		340					345						350						
Phe	Asn	Phe	Lys	Asp	Ser	Phe	Ser	Arg	Thr	Phe	Ile	Glu	Gly	Asn	Glu				
	355						360					365							
Asp	Leu	Gln	Arg	Leu	Asn	Phe	Phe	Lys	Leu	Asn	Ala	Val	Ala	Ser	Thr				
	370					375					380								
Asp	His	Glu	Asp	Ala	Tyr	Ala	Asn	Ile	Val	Arg	Glu	Ser	Trp	Ile	Ser				
385					390					395					400				
Arg	Leu	Ala	Lys	Ile	Tyr	Glu	Gln												
			405																

&lt;210&gt; 7

&lt;211&gt; 784

&lt;212&gt; PRT

&lt;213&gt; Bacteriophage C1 polypeptide

&lt;400&gt; 7

Met	Lys	Glu	Phe	Glu	Gln	Tyr	Leu	Lys	Ser	Phe	Lys	Gly	Gln	Lys	Val				
1			5					10					15						
Thr	Ser	Val	Asp	Leu	Tyr	Cys	Asp	Ile	Glu	Thr	Ala	Thr	Ile	Asn	Lys				
		20					25					30							
Asn	Ser	Gly	Gln	Lys	His	Ala	Ser	Thr	Tyr	His	Ser	Phe	Thr	Tyr	Ser				
	35					40					45								
Leu	Ala	Val	Ser	Tyr	Phe	Lys	Thr	Gly	Glu	Glu	Phe	Pro	Ser	Val	Val				
50						55					60								

Val	Phe	Asn	His	Phe	Lys	Gln	Leu	Phe	Asp	Phe	Ile	Glu	Lys	Ser	Lys	
65					70				75						80	
Ile	Arg	Lys	Ser	Ile	Glu	Phe	Arg	Leu	Ile	Phe	His	Asn	Gly	Ala	Lys	
				35				90						95		
Tyr	Asp	Asn	His	Phe	Met	Val	Ser	Glu	Ile	Gln	Arg	Asp	Ile	Asp	Asn	
			100					105					110			
Val	Arg	Leu	Phe	Asn	Gln	Thr	Ile	Lys	Gln	Val	Asn	His	Ile	Thr	Asp	
		115					120					125				
Leu	Asp	Leu	Ser	Lys	Lys	Gln	Gly	Lys	Gln	Met	Arg	Asn	Asp	Val	Asn	
		130				135					140					
Met	Val	Leu	Glu	Arg	Arg	Val	Arg	Ser	Ser	Asn	Asn	Leu	Asp	Gly	Asp	
145					150					155					160	
Met	Trp	Ile	Tyr	Gly	Arg	His	Tyr	Glu	Met	Val	Asp	Ser	Tyr	Arg	Lys	
				165					170						175	
Thr	Asn	Val	Ser	Ile	Glu	Leu	Cys	Gly	Arg	Met	Leu	Leu	Asn	Asn	Gly	
			180					185					190			
Leu	Ile	Asp	Glu	Gln	Tyr	Leu	Lys	Thr	Asp	Phe	Glu	Tyr	Asp	Lys	Tyr	
		195					200					205				
Asp	Leu	Asp	Thr	Asp	Leu	Thr	Trp	His	Glu	Val	Arg	Lys	Tyr	Arg	Glu	
	210					215					220					
Phe	Ile	Phe	Asn	Asp	Leu	Asp	Glu	Lys	Gln	Met	Lys	Tyr	Ile	His	Asn	
225					230					235					240	
Asp	Val	Ile	Ile	Leu	Ala	Leu	Thr	Cys	Lys	His	Tyr	Ser	Lys	Leu	Phe	
				245					250						255	
Tyr	Gly	Phe	Asp	Phe	Glu	Lys	Gln	Thr	Phe	Thr	Gln	Asn	Ile	Lys	Glu	
			260					265					270			
Glu	Tyr	Ala	Asn	Tyr	Asn	Asp	Met	Ala	Lys	Phe	Gln	Leu	Leu	Lys	Gln	
		275					280					285				
Ile	Gly	Asp	Asn	Met	Thr	Gly	Lys	His	Leu	Lys	Leu	Thr	Asp	Tyr	Phe	
	290					295					300					
Ile	Gln	Gly	Gln	Asn	Ala	Tyr	Asp	Tyr	Phe	Lys	Asn	Tyr	Tyr	Asn	Gly	
305					310					315					320	
Gly	Leu	Asn	Leu	Tyr	Asn	Asp	Lys	Tyr	Ile	Gly	Lys	Lys	Leu	Val	Arg	
				325					330						335	
Asp	Gly	Phe	Ser	Ile	Asp	Leu	Asn	Ser	Ser	Tyr	Pro	Thr	Val	Met	Tyr	
			340					345					350			
Lys	Glu	Lys	Leu	Pro	Thr	Phe	Leu	Val	Met	Val	Asp	Ser	Lys	Pro	Thr	
		355					360					365				
Asp	Leu	Lys	Asn	Ile	Gly	Ser	Thr	Asp	Gly	Asp	Tyr	Met	Val	Phe	Phe	
	370					375					380					
Asn	Met	Leu	Met	Glu	Asp	Val	Asn	Asp	Gln	Ile	Leu	Ser	Arg	Ile	Lys	
385					390					395					400	
Ser	Asn	Val	Ile	Lys	Ser	Ala	Ile	Val	Lys	Tyr	Trp	Arg	Val	Lys	Asp	
			405						410					415		
Gly	Tyr	Val	Trp	Leu	Asn	Asn	Val	Met	Ile	Ser	Leu	Ile	Glu	Glu	Ile	
			420					425					430			
Thr	His	Gln	Lys	Phe	Asn	Asn	Leu	His	Val	Gln	Ser	Phe	Ser	Val	Phe	
		435					440					445				
Glu	Cys	His	His	Phe	Gly	Ala	Arg	Asp	Ile	Ile	Ala	Lys	Asn	Tyr	Phe	
	450					455					460					
Ile	Lys	Thr	Gln	Gly	Lys	Met	Ser	Lys	Ala	Leu	Asn	Cys	Thr	Met	Glu	
465					470					475					480	
Thr	Ile	Asp	Pro	Leu	Asn	Ile	Glu	Leu	Thr	Asp	Lys	Asp	Lys	Pro	Lys	
				485					490					495		
Glu	Tyr	Asp	Phe	Ser	His	Glu	Met	Val	Glu	Gly	Ser	Lys	Val	Leu	Leu	
			500					505					510			
Asn	Gly	Ile	Tyr	Gly	Ile	Pro	Ala	Leu	Arg	Ala	Tyr	Phe	Asp	Cys	Tyr	

515					520					525					
Arg	Arg	Asp	Glu	Asn	Gly	Gln	Leu	Tyr	Asn	Val	Ser	Asn	Gly	Phe	Glu
530					535					540					
Asn	Lys	Glu	Arg	Asn	Ile	Val	Phe	Ser	Ala	Gly	Val	Thr	Ala	Phe	Ala
545					550					555					560
Val	Arg	Asn	Leu	Leu	Leu	Pro	Leu	Gly	Lys	Leu	Thr	Gln	Asp	Glu	Ile
565					570					575					
Asp	Asp	Tyr	Phe	Trp	Tyr	Ala	Asp	Thr	Asp	Ser	Leu	Tyr	Met	Asp	Lys
580					585					590					
Arg	Ala	Leu	Pro	Lys	Leu	Pro	Lys	Ser	Met	Phe	His	Lys	Met	Asn	Leu
595					600					605					
Gly	Gly	Trp	Asp	Ile	Glu	His	Ala	Asn	Ile	Ser	Thr	Phe	Tyr	Ala	Phe
610					615					620					
Asn	His	Lys	Lys	Tyr	Cys	Leu	Tyr	Asp	Asp	Asp	Asp	Asn	Glu	Ile	Val
625					630					635					640
Val	Arg	Cys	Gly	Gly	Ile	Ser	Lys	Ala	Leu	Ile	Lys	Lys	Trp	Ile	Ala
645					650					655					
Glu	Ser	Arg	Asn	Asn	Ile	Asp	Tyr	Phe	Ile	Asn	Asn	Phe	Phe	Ile	Asp
660					665					670					
Gly	Val	Thr	Ile	Pro	Ala	Thr	Arg	Ala	Ile	Arg	Asn	Glu	Trp	Asn	Thr
675					680					685					
Ile	Thr	Ile	Tyr	Asp	Gly	Thr	Ser	Glu	Leu	Lys	Lys	Gly	Gly	Val	Tyr
690					695					700					
Tyr	Lys	Lys	Tyr	Asp	Thr	Asn	Leu	Leu	Gln	Asn	Ile	Glu	Ser	Glu	Leu
705					710					715					720
Ala	Lys	Leu	Lys	Asp	Ala	Ile	Leu	Thr	Glu	Glu	Ser	Glu	Thr	Ser	Leu
725					730					735					
Asp	Tyr	Ser	Glu	Thr	Met	Tyr	Ile	Glu	Ser	Asn	Val	Gly	Ser	Phe	Gly
740					745					750					
Val	Ser	Asp	Leu	Tyr	Lys	Ile	Lys	Lys	Asn	Asn	Thr	Leu	Lys	Gln	Ser
755					760					765					
Ser	Met	Ile	Val	Asp	Glu	Tyr	Asp	Val	Phe	Lys	Ser	Tyr	Leu	Ile	Tyr
770					775					780					

&lt;210&gt; 8

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Bacteriophage C1 polypeptide

&lt;400&gt; 8

Met	Ile	Tyr	Leu	Leu	Ile	Leu	Asn	Ser	Ala	Asp	Phe	Ile	Ser	Gly	Ile
1				5					10					15	
Leu	Asn	Gly	Ile	Ala	Leu	Gly	Asp	Ile	Ser	Ser	Lys	Lys	Leu	Lys	Lys
		20						25					30		
Gly	Ile	Ile	Gly	Lys	Leu	Leu	Gln	Trp	Ile	Val	Ile	Ala	Val	Thr	Ile
		35						40					45		
Thr	Met	Lys	Pro	Val	Ile	His	Val	Asp	Leu	Leu	Thr	Tyr	Val	Ile	Ile
		50					55				60				
Tyr	Tyr	Tyr	Ile	Met	Glu	Val	Ile	Ser	Ile	Leu	Glu	Asn	Val	Ala	Trp
		65				70				75				80	
Tyr	Leu	Pro	Val	Pro	Lys	Lys	Leu	Leu	Asn	Val	Leu	Ala	Gln	Phe	Lys
				85					90					95	
Glu	Ile	Glu	Asn	Glu	Val	Lys	Ser	Asn	Glu	Gln	Asp				
			100					105							

&lt;210&gt; 9

&lt;211&gt; 72

&lt;212&gt; PRT

<213> Bacteriophage C1 light chain of PlyC (PlyC B)  
(formerly known as the alpha subunit)

&lt;400&gt; 9

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Met Ser Lys Ile Asn Val Asn Val Glu Asn Val Ser Gly Val Gln Gly
 1           5           10           15
Phe Leu Phe His Thr Asp Gly Lys Glu Ser Tyr Gly Tyr Arg Ala Phe
          20           25           30
Ile Asn Gly Val Glu Ile Gly Ile Lys Asp Ile Glu Thr Val Gln Gly
          35           40           45
Phe Gln Gln Ile Ile Pro Ser Ile Asn Ile Ser Lys Ser Asp Val Glu
          50           55           60
Ala Ile Arg Lys Ala Met Lys Lys
65           70

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&lt;210&gt; 10

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Bacteriophage C1 polypeptide

&lt;400&gt; 10

```

Met Ile Glu Glu Trp Val Lys His Pro Ser Leu Asn Tyr Tyr Ile Ser
 1           5           10           15
Ser Tyr Gly Arg Val Lys Asn Ser Lys Gly Leu Ile Met Lys Gln His
          20           25           30
Ile Cys Asn Gly Tyr Lys Arg Ile Lys Leu Val Lys Asp Gly Ile Lys
          35           40           45
Lys Asn Tyr Tyr Val His Arg Leu Val Ala Glu Thr Phe Ile Pro Lys
          50           55           60
Leu His Val Asp Tyr Val Val His His Ile Asp His Asp Lys Leu Asn
65           70           75           80
Asn Trp Val His Asn Leu Glu Trp Cys His Tyr Gln Thr Asn Leu Leu
          85           90           95
Tyr Glu Arg Glu Asn Leu Phe Asn Glu
          100           105

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&lt;210&gt; 11

&lt;211&gt; 472

&lt;212&gt; PRT

<213> Bacteriophage C1 heavy chain of PlyC (PlyC A)  
(formerly known as the beta subunit)

&lt;400&gt; 11

```

Met Lys Gly Arg Ile Tyr Leu Met Ser Lys Lys Tyr Thr Gln Gln Gln
 1           5           10           15
Tyr Glu Lys Tyr Leu Ala Gln Pro Ala Asn Asn Thr Phe Gly Leu Ser
          20           25           30
Pro Gln Gln Val Ala Asp Trp Phe Met Gly Gln Ala Gly Ala Arg Pro
          35           40           45
Val Ile Asn Ser Tyr Gly Val Asn Ala Ser Asn Leu Val Ser Thr Tyr
          50           55           60
Ile Pro Lys Met Gln Glu Tyr Gly Val Ser Tyr Thr Leu Phe Leu Met

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65          70          75          80
Tyr Thr Val Phe Glu Gly Gly Gly Ala Gly Asn Trp Ile Asn His Tyr
      85          90          95
Met Tyr Asp Thr Gly Ser Asn Gly Leu Glu Cys Leu Glu His Asp Leu
100          105          110
Gln Tyr Ile His Gly Val Trp Glu Thr Tyr Phe Pro Pro Ala Leu Ser
115          120          125
Ala Pro Glu Cys Tyr Pro Ala Thr Glu Asp Asn Ala Gly Ala Leu Asp
130          135          140
Arg Phe Tyr Gln Ser Leu Pro Gly Arg Thr Trp Gly Asp Val Met Ile
145          150          155          160
Pro Ser Thr Met Ala Gly Asn Ala Trp Val Trp Ala Tyr Asn Tyr Cys
165          170          175
Val Asn Asn Gln Gly Ala Ala Pro Leu Val Tyr Phe Gly Asn Pro Tyr
180          185          190
Asp Ser Gln Ile Asp Ser Leu Leu Ala Met Gly Ala Asp Pro Phe Thr
195          200          205
Gly Gly Ser Ile Thr Gly Asp Gly Lys Asn Pro Ser Val Gly Thr Gly
210          215          220
Asn Ala Thr Val Ser Ala Ser Ser Glu Ala Asn Arg Glu Lys Leu Lys
225          230          235          240
Lys Ala Leu Thr Asp Leu Phe Asn Asn Asn Leu Glu His Leu Ser Gly
245          250          255
Glu Phe Tyr Gly Asn Gln Val Leu Asn Ala Met Lys Tyr Gly Thr Ile
260          265          270
Leu Lys Cys Asp Leu Thr Asp Asp Gly Leu Asn Ala Ile Leu Gln Leu
275          280          285
Ile Ala Asp Val Asn Leu Gln Thr Asn Pro Asn Pro Asp Lys Pro Thr
290          295          300
Val Gln Ser Pro Gly Gln Asn Asp Leu Gly Ser Gly Ser Asp Arg Val
305          310          315          320
Ala Ala Asn Leu Ala Asn Ala Gln Ala Gln Val Gly Lys Tyr Ile Gly
325          330          335
Asp Gly Gln Cys Tyr Ala Trp Val Gly Trp Trp Ser Ala Arg Val Cys
340          345          350
Gly Tyr Ser Ile Ser Tyr Ser Thr Gly Asp Pro Met Leu Pro Leu Ile
355          360          365
Gly Asp Gly Met Asn Ala His Ser Ile His Leu Gly Trp Asp Trp Ser
370          375          380
Ile Ala Asn Thr Gly Ile Val Asn Tyr Pro Val Gly Thr Val Gly Arg
385          390          395          400
Lys Glu Asp Leu Arg Val Gly Ala Ile Trp Cys Ala Thr Ala Phe Ser
405          410          415
Gly Ala Pro Phe Tyr Thr Gly Gln Tyr Gly His Thr Gly Ile Ile Glu
420          425          430
Ser Trp Ser Asp Thr Thr Val Thr Val Leu Glu Gln Asn Ile Leu Gly
435          440          445
Ser Pro Val Ile Arg Ser Thr Tyr Asp Leu Asn Thr Phe Leu Ser Thr
450          455          460
Leu Thr Gly Leu Ile Thr Phe Lys
465          470

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&lt;210&gt; 12

&lt;211&gt; 574

&lt;212&gt; PRT

&lt;213&gt; Bacteriophage C1 polypeptide



&lt;400&gt; 12

Met	Thr	Leu	Ser	Lys	Ile	Lys	Leu	Phe	Tyr	Asn	Thr	Pro	Phe	Asn	Asn
1				5					10					15	
Met	Gln	Asn	Thr	Leu	His	Phe	Asn	Ser	Asn	Glu	Glu	Arg	Asp	Ala	Tyr
			20					25					30		
Phe	Asn	Ser	Lys	Phe	Asp	Val	His	Glu	Phe	Thr	Ser	Thr	Phe	Asn	Tyr
		35					40					45			
Arg	Asn	Met	Lys	Gly	Val	Leu	Arg	Val	Thr	Ile	Asp	Leu	Val	Ser	Asp
	50						55				60				
Arg	Ser	Cys	Phe	Glu	Gln	Leu	Met	Gly	Val	Asn	Tyr	Cys	Gln	Val	Gln
65					70					75					80
Tyr	Ile	Gln	Ser	Asn	Arg	Val	Glu	Tyr	Leu	Phe	Val	Thr	Asp	Ile	Gln
				85				90						95	
Gln	Leu	Asn	Asp	Lys	Val	Cys	Glu	Leu	Ser	Leu	Val	Pro	Asp	Val	Val
			100					105					110		
Met	Thr	Tyr	Thr	Gln	Gly	Asn	Val	Leu	Asn	Thr	Leu	Asn	Asn	Val	Asn
		115					120						125		
Val	Ile	Arg	Gln	His	Tyr	Thr	Gln	Thr	Glu	Tyr	Glu	Gln	Asn	Leu	Glu
	130						135					140			
Gln	Ile	Arg	Ser	Asn	Asn	Asp	Val	Leu	Ala	Thr	Ser	Thr	Met	Arg	Val
145					150					155					160
His	Ala	Ile	Lys	Ser	Glu	Leu	Phe	Thr	Gln	Leu	Glu	Tyr	Ile	Leu	Thr
				165					170					175	
Ile	Gly	Ala	Asn	Leu	Arg	Lys	Ser	Phe	Gly	Thr	Ala	Glu	Lys	Pro	Lys
			180					185					190		
Phe	Pro	Ser	Ser	Ser	Gly	Ser	Thr	His	Asp	Gly	Ile	Tyr	Asn	Pro	Tyr
		195					200					205			
Asp	Met	Tyr	Trp	Phe	Asn	Asp	Tyr	Glu	Ser	Leu	Lys	Glu	Val	Met	Asp
	210					215					220				
Tyr	Leu	Thr	Gly	Tyr	Pro	Trp	Ile	Gln	Gln	Ser	Ile	Lys	Asn	Val	Thr
225					230					235					240
Ile	Ile	Pro	Ser	Gly	Phe	Ile	Lys	Gln	Glu	Ser	Leu	Asn	Asp	His	Glu
				245					250					255	
Pro	Val	Asn	Gly	Gly	Asp	Leu	Ser	Val	Arg	Lys	Leu	Gly	Lys	Gln	Gly
			260					265					270		
Val	Ser	Asn	Gln	Lys	Asp	Phe	Asn	Ala	Ile	Ser	Leu	Asp	Tyr	Gln	Ser
		275					280					285			
Leu	Met	Phe	Thr	Leu	Gly	Leu	Asn	Pro	Ile	Asn	Asp	Lys	His	Leu	Leu
	290					295					300				
Arg	Pro	Asn	Ile	Val	Thr	Ala	Glu	Leu	Thr	Asp	Tyr	Ala	Gly	Asn	Arg
305					310					315					320
Leu	Pro	Ile	Asp	Leu	Ser	Leu	Ile	Glu	Thr	Asn	Leu	Glu	Phe	Asp	Ser
			325						330					335	
Phe	Val	Thr	Met	Gly	Ala	Lys	Asn	Glu	Ile	Lys	Val	Tyr	Val	Lys	Asn
			340					345					350		
Tyr	Asn	Ala	Arg	Gly	Asn	Asn	Val	Gly	Gln	Tyr	Ile	Asp	Asn	Ala	Leu
	355						360					365			
Thr	Ile	Asn	Asn	Phe	Asp	Thr	Ile	Gly	Phe	Ser	Val	Asp	Ser	Gly	Glu
	370					375					380				
Leu	Gly	Lys	Ala	Asn	Ser	Ala	Tyr	Ser	Arg	Glu	Leu	Ser	Asn	Ser	Arg
385					390					395					400
Gln	Met	Ser	Ser	Arg	Ile	Asn	Thr	Val	Leu	Asp	Asn	Asp	Ala	Ser	Val
				405					410					415	
Lys	Asp	Arg	Leu	Phe	Asn	Ala	Ile	Ser	Leu	Ser	Gly	Gly	Leu	Ser	Ile
			420					425					430		
Lys	Ser	Ala	Leu	Ser	Gly	Phe	Asn	Asn	Glu	Tyr	Glu	His	Tyr	Arg	Asp

435					440					445					
Gln	Lys	Ala	Gln	Phe	Lys	Gln	Met	Asp	Ala	Leu	Pro	Asn	Ala	Ile	Thr
450					455					460					
Glu	Gly	His	Val	Gly	Tyr	Ala	Pro	Leu	Phe	Lys	Gln	Asp	Lys	Phe	Gly
465					470					475					480
Val	His	Leu	Arg	Leu	Gly	Arg	Ile	Ser	Gln	Asp	Glu	Leu	Asn	Asn	Val
				485					490					495	
Lys	Lys	Tyr	Tyr	Asn	Met	Phe	Gly	Tyr	Glu	Cys	Asn	Asp	Tyr	Ser	Thr
				500					505					510	
Lys	Leu	Ser	Asp	Ile	Thr	Ser	Met	Ser	Ile	Cys	Asn	Trp	Val	Gln	Phe
				515					520					525	
Lys	Gly	Ile	Trp	Thr	Leu	Pro	Asn	Val	Asp	Thr	Gly	His	Met	Asn	Met
				530					535					540	
Leu	Arg	Ala	Leu	Phe	Glu	Ala	Gly	Val	Arg	Leu	Trp	His	Lys	Glu	Ser
545					550					555					560
Asp	Met	Ile	Asn	Asn	Thr	Val	Val	Asn	Asn	Val	Ile	Ile	Lys		
				565					570						

&lt;210&gt; 13

&lt;211&gt; 430

&lt;212&gt; PRT

&lt;213&gt; Bacteriophage C1 polypeptide

&lt;400&gt; 13

Met	Arg	Gly	Thr	Asn	Tyr	Met	Lys	Phe	Tyr	Ile	Asn	Pro	Phe	Asp	Gln		
1				5				10				15					
His	His	Asp	His	Met	Ser	His	His	Asp	His	Glu	His	Trp	Lys	Glu	Leu		
				20					25					30			
Gln	Phe	Ser	Lys	Ala	Val	Ala	Asp	Ala	Ile	Asn	Ala	Asn	Ser	Glu	Lys		
				35					40					45			
Asn	Ile	Glu	Gln	Asp	Gly	Arg	Leu	Asp	Gly	His	Asp	Lys	Asp	Val	Gln		
				50					55					60			
Asp	Leu	Lys	Asn	Ala	Asp	Leu	Glu	Ile	Ile	Gln	Gln	Ile	Asp	Glu	Val		
65					70					75					80		
Ala	Ala	Gln	Ala	Ala	Glu	Asn	Lys	Asn	Leu	Leu	Gly	Asn	Leu	Lys	Gly		
				85					90					95			
Ala	Glu	Thr	Ser	Thr	Ala	Lys	Ser	Asn	Ile	Tyr	Asn	Gly	Ile	Gln	Val		
				100					105					110			
Asp	Val	Lys	Val	Ala	Pro	Gln	Ser	Asp	Asn	Gly	Leu	Lys	Ile	Thr	Thr		
				115					120					125			
Asp	Gly	Leu	His	Val	Val	Asp	Tyr	Thr	Ser	Lys	Ile	Ala	Glu	Ile	Glu		
				130					135					140			
Gln	Leu	Ile	Asp	Glu	Ile	Leu	Thr	Pro	Glu	Gly	Ser	Asp	Val	Thr	Met		
145					150					155					160		
Glu	Gln	Ile	Arg	Ala	Met	Ile	Glu	Asn	Leu	Ser	Gln	Glu	Phe	Gly	Glu		
				165					170					175			
Ala	Asp	Ala	Gly	Leu	Lys	Leu	Gln	Ile	Asp	Asn	Met	Glu	Lys	Arg	Leu		
				180					185					190			
Ile	Ala	Leu	Asp	Ile	Pro	Asp	Ile	Asp	Pro	Leu	Thr	Gln	Lys	Ile	Glu		
				195					200					205			
Leu	Leu	Asp	Ala	Asp	Ile	Leu	Gly	Val	Lys	Gln	Ile	Ser	Thr	Tyr	Thr		
				210					215					220			
Glu	Met	Met	Asn	Ser	Leu	Ala	Thr	Phe	Gly	Ser	Arg	Glu	Gly	Ser	Lys		
225					230					235					240		
Ala	Ile	Arg	Phe	Asn	Pro	Val	Gly	Asn	Ala	Ser	Thr	Gly	Thr	Gln	Ile		
				245					250					255			

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Asp Pro Asn Gly Gly Met Asn Leu Leu Tyr Gln Ser His Thr Phe Gln
      260      265      270
Val Arg Gly Val Thr Lys Arg Phe Glu Phe Leu Leu Leu Asp Ile Trp
      275      280      285
His Met Thr Phe Arg Gly Thr Gly Trp Pro Glu Gln Val Ala Asp Met
      290      295      300
Tyr Tyr Phe Met Leu Asp Ile Tyr Ala Glu Gly Val Thr Asp Arg Leu
      305      310      315      320
Lys His Val Leu Ser Asn Asn Ala Ile Thr Met Asn Asp Phe His Gln
      325      330      335
Phe Asp Asn Asn Ala Gln Val Lys Lys Trp Tyr Pro Val Val Phe Thr
      340      345      350
Leu Tyr Gly Asn Asp Asp Lys Glu Glu Met Tyr Leu Val Ala Gln Gly
      355      360      365
Leu Gly Thr Ser Gly Leu Asp Thr Glu Ser Leu Asp Asn Phe Arg Ala
      370      375      380
Pro Ala Thr Gly Thr Pro Tyr Val Ile Glu Thr Trp Leu Asp Pro Val
      385      390      395      400
Thr Gly Thr Glu Tyr Met Pro Ala Tyr Gln Ala Asp Gly Tyr Lys His
      405      410      415
Lys Pro Phe Asn Gln Trp Val Thr Val Glu Asp Phe Tyr Ser
      420      425      430

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&lt;210&gt; 14

&lt;211&gt; 236

&lt;212&gt; PRT

&lt;213&gt; Bacteriophage C1 polypeptide

&lt;400&gt; 14

```

Met Arg Leu Phe Glu Leu Ile Tyr Lys Glu Val Val Lys Asn Gly Tyr
  1      5      10      15
Ser Pro Phe Arg Ser Pro Glu Asn Arg Ile Val Val Phe Glu Asp Lys
      20      25      30
Ala Gln Ile Glu Thr Lys Ile Met Met Tyr Asp Glu Asp Val Gln Lys
      35      40      45
Val Val Asn Glu Leu Ile Phe Thr Gly Ser Lys Val Asn Glu Asp Phe
      50      55      60
Arg Glu Glu Phe Val Asn Tyr Phe Phe Asn Arg Glu Pro His Trp Asp
      65      70      75      80
Ser Leu Tyr Ile Phe Arg Ala Lys Leu Lys Gly Ile Leu Lys Thr Lys
      85      90      95
Glu Ala Val Leu Asn Met Leu Tyr Leu Lys Ser Thr Glu Leu Leu Leu
      100      105      110
Gly Glu Ser Met Ser Lys Ser Glu Gly His Ser Ser Asn Glu Asn Arg
      115      120      125
Ser Arg Asp Asn Ser Thr Asn Glu Ser Asn Gly Glu Asn Arg Gly Ala
      130      135      140
Asn Ala His Ser Thr Asn Pro Asp Asp Val Thr Asp Thr Asp Leu Glu
      145      150      155      160
Thr Ala Asn Leu Ser Tyr Ala Asp Asn Leu Asp Lys Ser Tyr Asn Glu
      165      170      175
Ser Val Asn Val Ser His Ser Lys Gly Ile Ser Ser Ser Gln Gly Ser
      180      185      190
Ser Asn Asn Asn Ser Asn Ser Thr Asn Thr Gln Phe Asn Thr Lys Ala
      195      200      205
Leu Glu Glu Tyr Glu Ala Phe Lys Gln Lys Ile Phe Asp Glu Leu Asp

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210 215 220  
 Ile Lys Leu Phe Ser Gln Leu Phe Tyr Glu Gly Tyr  
 225 230 235

<210> 15  
 <211> 317  
 <212> PRT  
 <213> Bacteriophage C1 polypeptide

<400> 15  
 Met Gln Ile Thr Ser Gly Ile Lys Pro Ser Glu Met Asn Tyr Lys Met  
 1 5 10 15  
 Ser Thr Phe Thr Asp Asp Ile Ala Glu Arg Val Lys Leu His Lys Gln  
 20 25 30  
 Asn Tyr Phe Asn Ile Ile Tyr Ser Arg Tyr Val Glu Phe Leu Pro Leu  
 35 40 45  
 Leu Ile Ser Tyr Glu Asn Tyr Asp Leu Asp Ser Leu Leu Ile Glu Ser  
 50 55 60  
 Tyr Leu Arg Ala Gly Tyr Gly Val Ala Ile Gly Glu Thr Lys Thr Gly  
 65 70 75 80  
 Lys Ile Asp Val Leu Gly Tyr Cys Ser Val Asn Thr Asn Tyr Leu Gln  
 85 90 95  
 Pro Ile Lys Glu Pro Leu Gln Gly Lys Asp Ile Thr Phe Ile His Asn  
 100 105 110  
 Asn Ile Leu Pro Lys Gly Lys Tyr Lys Glu Leu Thr Arg Tyr Ser Asp  
 115 120 125  
 Gly Asn Phe Val Val Leu Arg Asn Lys Arg Ala Ser Phe Leu Cys Asp  
 130 135 140  
 Tyr Asn Ile Ile Thr His Tyr Val Met Glu Met Ser Glu Ile Ala Asn  
 145 150 155 160  
 Ser Arg Tyr Ser Ile Ser Ile Gln Ala Lys Val Asn Thr Phe Ile Arg  
 165 170 175  
 Asn Glu Gly Gly Ser Lys Asp Gly Gln Val Met Ala Asn Asn Leu Phe  
 180 185 190  
 Asn Gly Val Pro Tyr Thr Ala Thr Thr Pro Lys Phe Asp Pro Glu Glu  
 195 200 205  
 His Ile Leu Thr Phe Asn Asn Ala Ser Ala Val Ser Phe Leu Pro Glu  
 210 215 220  
 Leu Lys Arg Glu Gln Gln Asn Lys Ile Ser Glu Leu Asn Ala Met Leu  
 225 230 235 240  
 Gly Leu Asn Thr Leu Gly Val Asp Lys Glu Ser Gly Val Ser Glu Ile  
 245 250 255  
 Glu Ala Gln Ser Asn Thr Ala Phe Lys Lys Ala Asn Glu Asn Ile Tyr  
 260 265 270  
 Leu Gly Ile Arg Asn Glu Ala Leu Asn Leu Ile Asn Asn Lys Tyr Gly  
 275 280 285  
 Leu Asn Ile His Ala Glu Tyr Arg Asp Asn Met Val Ala Glu Leu Ser  
 290 295 300  
 Ser Ile Glu Lys Leu Gln Ile Val Ser Glu Val Ala Gln  
 305 310 315

<210> 16  
 <211> 392  
 <212> PRT  
 <213> Bacteriophage C1 polypeptide

&lt;400&gt; 16

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Met Ala Asp Glu Thr Thr Asn Val Ala Gly Ala Ile Val Ala Ser Leu
1      5      10      15
Asn Asp Phe Asn Ala Asp Asn Gly Lys Ser Trp Thr Phe Gly Thr Asn
20      25      30
Trp Asn Ala Val Gly Thr Asp Phe Glu Thr Tyr Thr Asn Gln Tyr Leu
35      40      45
Phe Pro Lys Leu Asn Glu Thr Leu Ile Val Glu Thr Ala Ala Gly Asn
50      55      60
Arg Leu Asp Trp Leu Ala Lys Glu Ile Asp Phe Ile Gly Gln Tyr Ser
65      70      75      80
Glu Glu Tyr Val Ile Leu Asp Thr Val Pro Val Glu Leu Asp Leu Ser
85      90      95
Lys Ser Ala Gln Leu Met Leu Glu Arg Asn Tyr Pro Lys Ile Ala Ser
100     105     110
Lys Leu Tyr Gly Ala Gly Ile Leu Lys Lys Leu Lys Phe Thr Leu Asn
115     120     125
Asp Asn Ile Gln Arg Gln Gln Phe Ala Thr Leu Gly Asp Ala Thr Lys
130     135     140
Phe Ala Val Gln Val Tyr Lys Lys Lys Ile Ala Asp Ile Asn Ile Ser
145     150     155     160
Glu Glu Gln Glu Leu Lys Ala Ile Ile Met Asp Tyr Thr Ser His Ile
165     170     175
Ala Asp Val Arg Glu Val Glu Ser Gly Ala Thr Met Gln Gln Phe Ile
180     185     190
Asn Lys Val Tyr Thr Ala Ile Leu Asn Leu Gln Asn Asn Ser Ala Lys
195     200     205
His Asn Glu Ala Ala Gln Ala Ser Gly Gly Ala Val Gly Arg Phe Thr
210     215     220
Thr Asn Thr Lys Leu Lys Asp Met Leu Ile Val Thr Thr Asp Glu Met
225     230     235     240
Lys Val Glu Ile Leu Asn Ser Phe Leu Ala Asn Thr Phe His Ala Glu
245     250     255
Gly Leu Asp Ile Thr Ser Gln Ile Ile Ser Phe Glu Asp Leu Gly Gly
260     265     270
Val Tyr Lys Ala Ala Glu Asp Ile Thr Val Asp Ala Thr Ile Gln Gly
275     280     285
Val Met Ala Ala Met Gly Asp Tyr Gln Val Lys Ala Gly Asp Val Ile
290     295     300
Pro Ala Gly Thr Val Phe Thr Tyr Glu Ile Pro Ala Glu Ala Leu Gly
305     310     315     320
Asp Gln Ala Asp Ala Leu Val Glu Val Lys Pro Asp Ser Asp Glu Phe
325     330     335
Val Ala Ile Phe Asp Val Arg Ser Ile Arg Tyr Lys Arg Tyr Thr Arg
340     345     350
Asn Met Leu Lys Ala Pro Phe Tyr Asn Gly Glu Phe Asp Glu Val Thr
355     360     365
His Trp Ile His Tyr Tyr Ser Met Lys Ala Ile Ser Pro Phe Tyr Asn
370     375     380
Lys Val Val Ile Lys Arg Ala Asn
385     390

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&lt;210&gt; 17

&lt;211&gt; 51

&lt;212&gt; PRT

<213> Bacteriophage C1 polypeptide

<400> 17

Met	Leu	Pro	Glu	Glu	His	Thr	Asn	Thr	Ile	His	Asn	Met	Thr	Lys	Asp
1				5					10					15	
Asp	Phe	Gly	Ile	Ser	Lys	Leu	Asp	Lys	Ser	Asn	Glu	Leu	Asn	Glu	Thr
			20					25					30		
Met	Thr	Ile	Gly	Gln	Gly	Lys	Ser	Gln	Asp	Glu	Val	Thr	Thr	Ala	Leu
		35					40					45			
Phe	Asn	Leu													
		50													

<210> 18

<211> 56

<212> PRT

<213> Bacteriophage C1 polypeptide

<400> 18

Met	Thr	Lys	Glu	Glu	Leu	Leu	Ala	Lys	Ile	Ala	Ala	Leu	Glu	Glu	Lys
1				5					10					15	
Thr	Ala	Arg	Leu	Glu	Glu	Leu	Ala	Thr	Ala	Pro	Ala	Pro	Ala	Asp	Glu
			20					25					30		
Pro	Lys	Gln	Gln	Glu	Glu	Gln	Glu	Pro	Glu	Val	Thr	Pro	Ile	Asp	Glu
		35					40					45			
Ile	Glu	Glu	Trp	Leu	Lys	Glu	Asp								
		50				55									

<210> 19

<211> 64

<212> PRT

<213> Bacteriophage C1 polypeptide

<400> 19

Met	Ala	Glu	Asn	Lys	Pro	Leu	Glu	Glu	Gln	Asp	Gly	Lys	Asn	Tyr	Glu
1				5					10					15	
Tyr	His	Ile	Tyr	Ala	Tyr	Val	Asn	Gly	Lys	Trp	Ile	Lys	Val	Tyr	Val
			20					25					30		
Thr	Arg	Asp	Val	Glu	Asp	Arg	Asp	Lys	Val	Met	Leu	Thr	Leu	Lys	Asn
		35					40					45			
Asp	Gly	Asp	Met	Ile	Lys	Asp	Tyr	Phe	Tyr	Glu	Thr	Lys	Glu	Ile	Lys
		50				55					60				

<210> 20

<211> 55

<212> PRT

<213> Bacteriophage C1 polypeptide

<400> 20

Met	Asn	His	Thr	Arg	Thr	Thr	His	Ile	Ser	Val	Thr	Glu	Thr	Ser	Ile
1				5					10					15	
Asp	Thr	Leu	Arg	Asp	Ile	Tyr	Ala	His	Glu	Val	Ala	Thr	Tyr	Gly	Met
			20					25					30		
Glu	Asn	Val	Lys	Val	Val	Ser	Phe	Thr	Met	Asn	Asn	Glu	Gly	Val	Thr
		35					40					45			

Met Val Tyr Asp Ile Ile Lys  
50 55

<210> 21

<211> 16687

<212> DNA

<213> Bacteriophage C1 entire genomic sequence

<400> 21

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ataagaaaga ggtacacaac atggttcaca aagtaacaac acgcaaatca ctaactgaca 180
caagcattga cagattgtta agcacatacg cgcagattgt agcgacttac ggctcaccaa 240
atgttcaaag agtccgcttc gtttaagaacg gaaatagcgc aacaatgact tacgacataa 300
caatattaat ttaaaaaagt aaacttttcta gttgacaacg acataacggg ttgatataat 360
tagtatataa aatagagata gaggtaacaa caatgacatt tcaaaaagtc cttagattta 420
aagacgtatc acgtgaagag atgatgaaaa actacaggga attaacagcc cgctatggta 480
tgaataacat catcttagaa gatttgaaat acgacgttga atacaacgaa tactcattca 540
atatactaat caagctataa ggagatatct catgaaaatt agaataaaaa caattttacac 600
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caacaacaat gtttaacactg ataatacttt taataatagc aaccctattg tacaagttga 720
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caattgatta tttaaagttt gaattagaaa ggggttaaaaa atgaccaaag acctagtaac 1620
tggtatcaac gaccaacacg ttttaagcga acatgaattc acaagtaaga aacacgcttt 1680
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<211> 219

<212> DNA

<213> Bacteriophage C1 light chain of PlyC (PlyC B)  
(formerly known as gene for alpha subunit)

<400> 22

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<210> 23

<211> 1419

<212> DNA

<213> Bacteriophage C1 heavy chain of PlyC (PlyC A)  
(formerly known as gene for beta subunit)

<400> 23

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<210> 24

<211> 318

<212> DNA

<213> Bacteriophage C1 lysin intergenic locus(lil)

<400> 24

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&lt;210&gt; 25

&lt;211&gt; 2213

&lt;212&gt; DNA

&lt;213&gt; Bacteriophage C1 PlyC operon

&lt;400&gt; 25

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